



THE UNIVERSITY *of* EDINBURGH

Edinburgh Research Explorer

Tensions between the Equity and Efficiency of Schooling: the Case of Scotland

Citation for published version:

Croxford, L 2010, 'Tensions between the Equity and Efficiency of Schooling: the Case of Scotland', *Education Inquiry*, vol. 1, no. 1, 1, pp. 7-22.
<http://www.use.umu.se/digitalAssets/40/40553_inquiry_croxford.pdf>

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Publisher's PDF, also known as Version of record

Published In:

Education Inquiry

Publisher Rights Statement:

© Croxford, L. (2010). Tensions between the Equity and Efficiency of Schooling: the Case of Scotland. *Education Inquiry*, 1(1), 7-22. [1].

General rights

Copyright for the publications made accessible via the Edinburgh Research Explorer is retained by the author(s) and / or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights.

Take down policy

The University of Edinburgh has made every reasonable effort to ensure that Edinburgh Research Explorer content complies with UK legislation. If you believe that the public display of this file breaches copyright please contact openaccess@ed.ac.uk providing details, and we will remove access to the work immediately and investigate your claim.



EDU. INQ.

EDUCATION INQUIRY

Volume 1, No. 1, March 2010

CONTENT

Editorial

Linda Croxford

*Tensions Between the Equity and Efficiency of Schooling:
The Case of Scotland*

David R Cole & Paul Hager

Learning-Practice: The Ghosts in the Education Machine

Christina Olin-Scheller and Patrik Wikström

*Literary Prosumers: Young People's Reading and Writing in a New
Media Landscape*

James McKernan

A Critique of Instructional Objectives



Umeå School of Education

Umeå University
Sweden

EDUCATION INQUIRY

Education Inquiry is an international on-line, peer-reviewed journal with free access in the field of Educational Sciences and Teacher Education. It publishes original empirical and theoretical studies from a wide variety of academic disciplines. As the name of the journal suggests, one of its aims is to challenge established conventions and taken-for-granted perceptions within these fields.

Education Inquiry is looking for lucid and significant contributions to the understanding of contextual, social, organizational and individual factors affecting teaching and learning, the links between these aspects, the nature and processes of education and training as well as research in and on Teacher Education and Teacher Education policy. This includes research ranging from pre-school education to higher education, and research on formal and informal settings. Education Inquiry welcomes cross-disciplinary contributions and innovative perspectives. Of particular interest are studies that take as their starting point, education practice and subject teaching or didactics.

Education Inquiry welcomes research from a variety of methodological and theoretical approaches, and invites studies that make the nature and use of educational research the subject of inquiry. Comparative and country-specific studies are also welcome.

Education Inquiry readers include educators, researchers, teachers and policy makers in various cultural contexts.

Education Inquiry is a continuation of the Journal of Research in Teacher Education, which is available in printed copies as well as electronic versions and free access at <http://www.use.umu.se/forskning/publikationer/lof/>

Editor

Professor Per-Olof Erixon, Umeå University, Sweden

The editorial board

Professor Marie Brennan, School of Education, UniSA, Australia

Professor Bernard Cornu, Directeur de la Formation – CNED,
Directeur de CNED-EIFAD, France

Professor David Hamilton, Umeå University, Sweden

Professor Brian Hudson, Umeå University, Sweden

Professor Gloria Ladson-Billings, University of Wisconsin-Madison, USA

Professor Martin Lawn, University of Edinburgh, UK

Assistant Professor Eva Lindgren, Umeå University, Sweden

Assistant Professor Linda Rönnerberg, Umeå University, Sweden

Professor Kirk Sullivan, Umeå University, Sweden

Professor Gaby Weiner, University of Edinburgh, UK

Professor Pavel Zgaga, University of Ljubljana, Slovenia

Guidelines for Submitting Articles

Articles should not normally exceed 5–6 000 words. They should be typed, double-spaced and A 4 paper, with ample left- and right hand margins, author's name and the paper only. MS Word with formatting is preferred. Manuscript must be submitted digitally via email attachment. Please include:

- 1 digital copy with separate graphic files
- list of 4 or 5 keywords
- 100-word abstract
- a separate file with names and contact information for all authors (include name, highest degree, mailing address, phone, fax and institutional affiliation).

Send Manuscripts to:

EducationInquiry.Editor@adm.umu.se

Education Inquiry's homepage:

<http://www.use.umu.se/english/research/educationinquiry>

ISSN online 2000-4508

©2010 The Authors

DOI: 10.1080/09500690701338901

Editorial

Education Inquiry is a new international online, peer-reviewed journal with free access in the field of Educational Sciences and Teacher Education. It is published by the Umeå School of Education, Umeå University, Sweden and is issued four times per year (March, June, September, December). It pursues original empirical and theoretical studies from a wide variety of academic disciplines. The new journal will hopefully fulfil our ambitious expectations as regards publishing interesting and important research from different national contexts. It is our ambition to make it international in that sense. Also, as the name of the journal suggests, one of its aims is to challenge established conventions and taken-for-granted perceptions within these fields. *Education Inquiry* welcomes research from a variety of methodological and theoretical approaches, and invites studies that make the nature and use of educational research the subject of inquiry. Comparative and country-specific studies are also welcome. *Education Inquiry* readers include educators, researchers, teachers and policy-makers in various cultural contexts.

The journal has been established in a period of time when education systems are undergoing radical changes all over the world. Big and strong policy actors in this connection are the Organisation for Economic Cooperation and Development, the United Nations, UNESCO, the World Bank and, from the European horizon, of course also the European Union. What unites the development and proposals that are being brought forward is a logic based on neo-liberal and market-oriented ideas. The guiding principle is competition and surveillance. The Programme for International Student Assessment which today, according to its own statement, covers 90 percent of the world's economies has now become a hegemonic enterprise as regards the reform of national education systems in terms of more external examinations and more privatised options. Neo-liberalism and a market orientation also have an impact on higher education, where excellence research, external research funding on a competitive basis, research efforts evaluated in terms of impact and international publication are mantras constantly being repeated. Several articles in this issue of *Education Inquiry* deal with different aspects of this fact.

We are pleased to be able to present articles from Australia, Scotland, the USA and Sweden in this first issue of *Education Inquiry*. Linda Croxford's article "Tensions between the Equity and Efficiency of Schooling: the Case of Scotland" shows, on the basis of two recently completed research projects in Scotland, "how pressures for continuous improvement in attainment lead to practices that exacerbate inequalities". In the article "A Critique of Instructional Objectives", James McKernan argues that the 'objectives model' of curriculum planning predicted upon behavioural performances has become the dominant form in Europe and elsewhere in the world. In his article he argues that the objectives model is satisfactory for training or instruction, but not when applied to a true sense of 'education'. Cole & Hager's article "Learning-practice:

The Ghosts in the Education Machine” discusses, on the basis of theoreticians and philosophers such as Ryle, Wittgenstein, Deleuze & Guattari and Dreyfus & Dreyfus that, no matter how thoroughly and precisely one tries to put into words and describe a teaching situation, there is always “an element missing in the teacher’s account”, which in the article is called “the ghosts in the education machine” and which can be attributed to the complexity, multiplicity and variation in every teaching context. The fourth and last article in this issue, Christina Olin-Scheller’s “Literary Prosumers – Young People’s Reading and Writing in a New Media Landscape”, focuses on another international phenomenon, namely the digital media society that has in many different ways changed the prerequisites for teaching and learning. With examples taken from different types of fan culture, she shows that culture is a matter of ‘user generated content’ and that young people in that sense are vital participants as ‘prosumers’. In these contexts patterns for learning are being developed that can also be used in an educational context.

Per-Olof Erixon
Education Inquiry Editor
EducationInquiry.Editor@adm.umu.se

Tensions Between the Equity and Efficiency of Schooling: the Case of Scotland

Linda Croxford*

Abstract

Equity and efficiency are the twin goals of European education policymakers, but there are tensions between these goals. This article illustrates these tensions within the school system of Scotland, drawing on two recent research projects: 'Fabricating Quality in European Education' (FABQ) and the Applied Educational Research Scheme (AERS) study entitled 'How do schools in Scotland measure their own performance?' It outlines the Quality Assurance and Evaluation (QAE) system developed in Scotland since the 1980s in line with neo-liberal policy approaches and describes the problems of inequity identified by a review of Scottish education by the Organisation for Economic Cooperation and Development (OECD). Case studies of schools illustrate how pressures for continuous improvement in attainment lead to practices that exacerbate inequalities. Ability grouping within schools can have similar consequences to those of 'tracked' school systems in Europe that increase inequalities. The article emphasises that the tensions between equity and efficiency need to be acknowledged at national and European levels, and directly addressed as a policy problem.

Keywords: Equity, Inequality, Performance management, Quality assurance, Tracking

Introduction

The growing use of Quality Assurance and Evaluation (QAE) in school education throughout Europe reflects the encroachment of neo-liberal design principles with their focus on efficiency and competitiveness (Ozga and Lingard 2007). These approaches may conflict with more traditional social democratic concerns for equality and social justice. In 2000 the Lisbon Council focused on the '*quantum shift resulting from globalisation and the new knowledge economy*' and established common objectives for European education systems (Council of the European Union 2000). Potential tensions are recognised between the 'twin goals' of efficiency and equity in the pursuit of competitiveness and social cohesion (European Commission (EC) 2006, 2008):

'Giving equal consideration to the efficiency ... and equity objectives of the education and training systems is a sine qua non of achieving the Lisbon goals while strengthening the European social model and ... there is no trade-off between efficiency and equity' (*Official Journal of the European Union* 2006).

*University of Edinburgh, Centre for Educational Sociology, St John's Land, Holyrood Road, Edinburgh EH8 8AQ. Email: L.Croxford@ed.ac.uk

This article focuses on the school system of Scotland to illustrate that there may indeed be a trade-off between equity and efficiency. It draws on two recent research projects that have complementary approaches. The first, 'Fabricating Quality in European Education' (FABQ)ⁱ, is a comparative study that explores QAE as a form of governance of education. It compares QAE policy and practice in England and Scotland with those in Denmark, Finland and Sweden. The research includes a review of policy literature and interviews with policymakers in national and local government contexts in England and Scotland, and also in the European policy community. The second, 'How do schools in Scotland measure their own performance?' was carried out as part of the Applied Educational Research Scheme (AERS)ⁱⁱ. It included a survey of local authorities and case studies in six schools across Scotland, focusing on the processes and impacts of QAE within schools.

The article outlines the goals of efficiency and equity in European education policy, and goes on to describe the case of Scotland. It summarises the findings of a recent review of 'Quality and Equity of Schooling in Scotland' carried out by the Organisation for Economic Cooperation and Development (OECD 2007) and illustrates some of the tensions evident in the Scottish education system.

Efficiency and equity in European policy for school education

Education policy is the responsibility of European Union (EU) member states and, as Grek (2008, p. 212) explains, European policymaking focuses on promoting common aims through the 'open method of co-ordination'. This includes the development of indicators and benchmarks for comparison between member states and targets for the EU as a whole (EC 2002). The process of defining indicators increases the importance of the aspect of education they measure within the policies of member states. For example, members of the AERS research team, who have hitherto worked only within their own national systems, were surprised to learn that indicators which had suddenly assumed national prominence, such as the numbers of 'Early school leavers not in education, employment or training' (NEET), were originally defined as European benchmarks (EC 2002).

The EC Communication on Efficiency and Equity is an example of EC sharing policy trends and research evidence with policymakers in member states. It argues that efficiency and equity are mutually reinforcing (EC 2006 para 1.3) and defines equity as:

... the extent to which individuals can take advantage of education and training, in terms of opportunities, access, treatment and outcomes. Equitable systems ensure that the outcomes of education and training are independent of socio-economic background and other factors that lead to educational disadvantage and that treatment reflects individuals' specific learning needs. Inequity in relation to gender, ethnic minority status, disability and regional disparities etc. is not the prime focus here, but is relevant as far as it contributes to overall socio-economic disadvantage (*EC 2006, footnote 2*).

Efficiency is defined as:

... the relationship between inputs and outputs in a process. Systems are efficient if the inputs produce the maximum output. Relative efficiency within education systems is usually measured through test and examination results, while their efficiency in relation to wider society and the economy is measured through private and social rates of return (*EC 2006, footnote 2*).

The introduction of QAE in school education can be seen as part of a drive for efficiency, although the design and implementation of QAE systems differ between countries. In particular, the European Parliament and Council express approval for systems of self-evaluation and external evaluation to encourage *‘a process of continuous improvement’*, and *‘the collection of data and the development of tools such as indicators and benchmarks of particular relevance for quality evaluation in schools’* (European Parliament and Council 2001). However, the EC Communication on Equity and Efficiency also notes that *‘accountability systems should be designed to ensure a full commitment to equity’* (EC 2006, para 17).

The OECD also promotes quality and equity, and has a strong influence on European education policy through international comparisons (Grek 2009). The Standing International Conference of Inspectorates (SICI) also promotes common approaches to QAE (Croxford et al. 2009).

QAE in Scotland

The education system in Scotland is quite distinct from the national systems in England and Wales, with a separate tradition of education that dates back to before their political union in 1707. Although the Scottish education system has been subject to policy pressures to improve the efficiency of public services, pressures that are common to the whole United Kingdom (UK), the Scottish system of QAE relies less on attainment targets than is the case in England, and places greater emphasis on self-evaluation (Croxford et al., 2009). Nevertheless, QAE systems in Scotland have been developing over the past 30 years, which is a relatively longer period than in many other countries. In this section, we draw attention to some of the significant features of the system which reflect many of the features advocated for European QAE systems.

The external inspection of education and services for children is a key part of the QAE system in Scotland. Her Majesty’s Inspectors of Education (HMIE) carry out regular cycles of inspection of schools and local authorities, and issue public reports of their findings. These inspections carry a high tariff and anecdotal evidence suggests that they tend to be very stressful for school and local authority staff, who must attempt to put on a good performance. Inspections include: scrutiny of attainment statistics and school evaluations; questionnaires to pupils, parents and teachers; interviews with school managers; and classroom observation. In secondary schools,

inspections focus strongly on attainment data, especially a comparison of the school's performance with performance in schools that are considered to have similar socio-economic characteristics – there is an assumption that a school is underperforming if examination results are lower than in comparator schools.

HMIE play a key role in defining the 'Quality Indicators' to be used for inspection and self-evaluation purposes – thus, they are in a position to define what is valued and measured in the school system. Since 1996, HMIE have promoted self-evaluation by schools as an important part of the QAE system and have developed an instruction manual (*How Good is our School? (HGIOS?)*) which sets out the procedures to be used by schools. Inspection of the quality of the school's self-evaluation procedures is now a key part of the inspection process. The audit procedure set out in *HGIOS?* requires schools to look at each aspect of provision and ask: *How are we doing? How do we know? What are we going to do now?* For each indicator, the school is expected to gather evidence in order to evaluate performance on a 6-point scale from 1 (Unsatisfactory) to 6 (Excellent). This model has now been adopted in a number of European countries through the influence of the SICI (Croxford et al. 2009).

HGIOS? defines 30 'Quality Indicators' under the headings: key performance outcomes; impact on learners; impact on staff; impact on the community; delivery of education; policy development and planning; management and support of staff; partnership and resources; and leadership' capacity for improvement (HMIE, 2007). 'Key performance outcomes' are key quality indicators for which quantitative data on attainment are used to evaluate performance. In secondary schools the evaluation is based on National Qualifications. In primary schools data on attainment are more limited and less reliable than in secondary schools. National Assessments of pupils aged 5-14 are carried out at the teachers' discretion to confirm their level of achievement in reading and mathematics – they are not standardised tests like the national curriculum tests used in England.

Schools are required to make continuous improvement. Each year schools are expected to produce an 'Improvement Plan', which incorporates priorities for improvement arising from self-evaluation, together with priorities defined by national and local governments. Each school must also write a 'Standards and Quality' report to inform the public and parents about its performance.

The local authorities in Scotland are responsible for securing the continuous improvement of their schools. Quality improvement personnel have a remit to 'support and challenge' schools in securing improvement and to this end they carry out regular visits to schools and scrutinise evidence of performance. Quantitative data are a major focus of the discussion with the headteacher as they are used to evaluate the school.

The OECD Review of Quality and Equity

The concept of equity is seen as playing a strong part in the prevailing tradition (or 'myth') that Scottish education (like Scottish society) is relatively egalitarian and

meritocratic. Scotland has a fairly homogenous school system in which 96% of Scottish children are educated in non-selective schools run by local education authorities. Bryce and Humes (2008) explain the principles underlying the comprehensive system of secondary education in Scotland:

‘It can be seen as an expression of social unity enabling the vast majority of youngsters to share a broadly similar education prior to entering the adult world It can also be regarded as a manifestation of the democratic will, endorsed at successive elections (pre- and post-devolution) in Scotland, surviving the attacks of the Thatcher years, and remaining potent under a nationalist administration. And it can be viewed as a statement of belief in equality of opportunity whereby all secondary pupils, regardless of class, gender or ethnic background, have a chance to develop knowledge and skills, and experience a sense of achievement’ (*op. cit.* p 33).

In 2006 the OECD was asked by the Scottish government to examine the strengths of Scotland’s schools and the challenges they face in securing high standards for all children. A review team visited Scotland for two weeks in March 2007, visited four local authorities and heard from a range of stakeholders. They were also informed by a briefing document prepared by the government, analyses of the Programme for International Student Assessment (PISA) and a range of academic research papers.

The review indicates that Scotland performs at a consistently very high standard in PISA and is building on a high platform of achievement in basic education. It reports that the comprehensive system of secondary schooling is one of the strengths of the education system in Scotland. However, it also states that Scotland faces major challenges in addressing inequalities in achievement and life chances and points to a widening achievement gap at each stage of education. This gap is associated with poverty, deprivation and low socio-economic status (OECD, 2007).

School differences

In view of the homogeneous school system it is not surprising that the review suggests:

‘very little of the variation in student achievement in Scotland is associated with ways in which schools differ’ (OECD, 2007, p.15).

For example, the 2003 PISA analysis of between-school and within-school variation in mathematics scores suggests that in Scotland 12.6% of the variance is between schools compared with the OECD average of 33.6% (Scottish Executive Education Department 2007, p. 61). The review suggests that large within-school variation in scores points to common processes in all Scottish schools that differentiate pupils and lead to differences in their outcomes – including teachers’ expectations, curriculum, classroom organisation and pedagogy.

Equity

The review clearly indicates that evidence of within-school differences highlights issues of equity:

‘Who you are in Scotland is far more important than the school you attend, so far as achievement differences on international tests are concerned. Socio-economic status is the most important difference between individuals. Family cultural capital, life-style, and aspirations influence student outcomes through the nature of cognitive and cultural demands of the curriculum, teacher values, the programme emphasis in schools, and peer effects’ (OECD, 2007, p. 15).

Commenting on the OECD review, Raffe (2008) points out that *‘conclusions about the equity of Scottish education depend on the concept of equity that is used.’* He demonstrates that, in respect of student achievement, the OECD review refers to at least three distinct concepts of equity:

- Equity 1 – indicated by a narrow spread of achievement and/or by a very large proportion of students achieving at or above a minimum ‘threshold’ level;
- Equity 2 – indicated by a narrow achievement gap between students from multiple deprived or disadvantaged backgrounds and other students; and
- Equity 3 – indicated by a relatively shallow gradient of achievement across the whole spectrum of socio-economic status (SES).

Raffe suggests that whilst Scotland’s school system may be equitable based on Equity 1 (because fewer students score at the lowest levels in PISA assessments in Scotland than in most other OECD countries), Scotland is less equitable in terms of Equity 3 because in the 2006 the PISA results as an indicator of economic, social and cultural status explained more variation in Scottish test scores than the OECD average (Raffe, 2008).

QAE processes

The OECD review comments on the predominantly academic culture of schools and the lack of curriculum innovation. The review also notes that the current high-profile comparison of performance by schools may prevent schools and local authorities from experimenting with new ways of addressing the needs of disadvantaged youngsters:

Promotion of change in schools is hampered by the vulnerability of schools to adverse perceptions and judgments based on examination results’ (OECD, 2007, p. 17).

These comments by the OECD review suggest potential adverse effects of some aspects of QAE on improving equity in Scottish education. In view of these comments, the

AERS research team decided to further explore the effects of performance management on equity issues by interrogating qualitative data from the project ‘How do schools in Scotland measure their own progress?’ⁱⁱⁱ

Evidence from the AERS case study schools

The AERS case studies took place in spring 2007, before the OECD Review was published, and did not specifically ask questions about the issues it raised. However, in this article we attempt to draw on them to illuminate some interactions between performance measurement and equity issues.

‘Continuous improvement’ is a recommendation of the European Parliament and Council (2001) and also a statutory requirement of Scottish education (Scottish Executive Education Department 2004). However, our analysis of the case-study data suggests that the requirement to make a continuous improvement in terms of test and examination results puts tremendous pressure on schools, and leads school managers to behave in ways that may raise the school outcome in the short term but do little to improve teaching and learning.

Focus on attainment

In each case-study school, we found constant awareness of the focus on attainment – and the pressure to ratchet up the overall percentage of the year group achieving performance targets. This confirms the comments of the OECD review concerning the pressures created by the high profile of examination results. One secondary headteacher put it quite succinctly:

‘The whole-school measure ... that’s what’s going to appear in the papers – that’s the benchmark figure against which we’ll be judged by the authority and by the Inspectorate’
(*Headteacher: AERS case study D*).

When carrying out the case studies we found that schools were very alert to potential criticism by the Inspectorate and attempting to avert criticism by producing levels of attainment that would be approved by inspectors. In secondary schools the management teams were very much aware that attainment in National Qualifications was the key indicator by which their performance would be judged. Raising overall attainment was therefore a major focus of their management decisions. Data on attainment within subjects and classes are analysed by senior management teams to find out where there may be evidence of problems in learning and teaching. In secondary schools, meetings between senior managers and department/faculty managers make use of National Qualifications data as the basis for discussing overall departmental performance and that of individual class teachers. Department heads are challenged about subject courses that appear to be underperforming, with discussion focusing on how to improve them.

Further, the focus on attainment creates perverse incentives for schools to target resources to particular pupils because they may improve the school's performance indicators. For example, a key performance outcome is the percentage of pupils attaining five or more credit level awards at Standard Grade (the National Qualification at age 16) – so there is an incentive to provide study support to pupils who are likely to achieve just four awards at Standard Grade, but who may – with extra support – be able to achieve five awards. This practice appears inequitable because it may help some individuals to achieve more highly, while other lower-attaining pupils do not get the extra support (Cowie et al., 2007).

We wonder if there is a danger that the focus on measurable targets – such as the percentage of the S4 cohort achieving 5+ awards at Standard Grade – may divert attention from the wider purposes of education that are less easy to measure. In two of the secondary case studies, staff described tensions between the desire to provide pupils with wider experiences and life skills, and the possible impact on overall measures of academic attainment. For example, one secondary school had reduced the number of subjects studied for Standard Grade examinations at age 16 in order to free up time in the curriculum for a range of wider learning experiences – but the headteacher was very aware that the school's overall performance indicators would look relatively low as a consequence. In another secondary school the headteacher was concerned that his performance indicators for students aged 17-18 looked relatively low – he found that students who had already achieved entrance qualifications for university were engaged in a range of community activities and part-time work instead of studying more courses. He believed that the activities they were engaged in were valuable forms of wider learning, but had to discourage this in order to increase participation in courses that contributed to performance indicators.

Exacerbating inequalities

The drive to improve school performance indicators has led to the adoption by schools of practices that widen inequalities in terms of both Raffe's Equity 1 and Equity 3. In particular, there has been a growing tendency to use ability grouping – such as setting and broad-banding – in spite of research reviews pointing out there is no clear evidence that grouping pupils by ability raises overall attainment, and there is clear evidence that ability grouping widens inequality (Hallam and Toutounji 1996, Harlen and Malcolm 1997, Sukhnandan and Lee 1998, Dunne et al. 2007).

In spite of the evidence against ability grouping, pressure on schools to use it has come from the inspectorate (Kirkwood 2008). In 1995, the overwhelming majority of classes in Scottish secondary schools were mixed ability (95.7% of classes in S1 and S2 (the first two secondary stages – age 12-14): Scottish Office 1997). The inspectorate believed that mixed-ability classes were a reason for underachievement in the first two years of secondary schooling and commissioned a research review of ability grouping by Harlen and Malcom (1997). Their review concluded:

‘There is no consistent and reliable evidence of positive effects of setting and streaming in any subjects or for students of particular ability levels...When ability groups are formed by setting or streaming, their disadvantages are well documented: reinforced social class divisions, increased likelihood of delinquent behaviour in the later school years, lowered teacher expectations of the less able, bias and inconsistency in allocating pupils to ability groups, anxiety for pupils struggling to keep up with the pace of the class’ (*Harlen and Malcom 1997 p. 40*).

The inspectorate ignored the research review it had commissioned and published its own report ‘Achievement for All’ which recommended that:

- ‘In primary schools, attainment groups should be the principal means of organising pupils in English language and mathematics. Increasingly, attainment groups should be introduced for other aspects of the primary curriculum as 5-14 guidelines become fully implemented.
- In secondary schools, much greater use should be made of attainment groups in all subjects. Broad band setting should be introduced in English and mathematics from S1 and, where feasible, in a number of other subjects by S2, particularly in science and modern languages.
- All schools should promote direct teaching as the principal role of class teachers’ (HMI 1996).

The main argument in favour of ability grouping in ‘Achievement for All’ was efficiency – to reduce the amount of time spent by teachers on organising and managing learning for a wide range of attainment – time that could be spent on direct teaching (Kirkwood 2008, pp. 419-420). Grouping by ability may make it easier to organise teaching, but paradoxically it may lead to less individualised learning as teachers may assume the greater homogeneity of understanding by pupils within the group. Research by Boaler found that:

‘In interviews the pupils reported that working at the pace of the class (as is common practice in setted classes) negatively affected their understanding compared with working at their own pace... When they worked at their ‘own pace’ in mixed ability classes the pupils reported a greater depth of understanding’ (*reviewed in Harlen and Malcolm 1997, p 33*).

There is no information collected at a national level in Scotland about the extent of ability-grouping and its effects. However, it is apparent that the practice of setting and broad banding has increased within Scottish schools as a result of the HMI recommendations and pressure applied by school inspection reports. Among the case-study schools, we found a range of practices – four of the six headteachers favoured mixed-ability teaching for most subjects, but accepted the formation of ability groups by some departments.

One of the primary case-study schools experienced considerable parental pressure from high social class parents and introduced a comprehensive programme of standardised testing. Following an HMIE inspection that identified some weak-

nesses in the teaching of mathematics, the school divides pupils into ability sets for Mathematics from Primary 4 (age 8-9). The practice was explained by a deputy headteacher:

‘...what we did was make sure that the children of high ability in terms of non verbal reasoning and the figurative part of the test, the numerical part of the test, were in the correct maths sets and that those maths sets were working at a level which reflected the very high levels of standardised scores. Some of these children were in the top 1%, 2% of the population. So they were working at level F. So the school in a way has stretched its ambition because it knows the children have the ability. And also the achievement tests. The children can achieve very high levels. It is causing a level of improvement, particularly in maths...’
(*Deputy headteacher in AERS case study A*).

S/he stated that periodic reviews of progress do occasionally result in pupils moving upwards between sets, but there has not been an occasion to move a pupil down a level.

Two of the secondary case-study schools are committed to mixed-ability classes in the first two secondary stages. Indeed, one uses Cognitive Abilities Test (CAT) scores to ensure a good mix of abilities. In this school, the focus is on individual pupils and the need to raise their aspirations – to overcome the perception ‘What can you expect from people round here?’.

By contrast, another of the secondary case studies has an ability-band system – it allocates pupils to three broad ability bands on entrance to secondary school on the basis of CAT scores. Pupils remain in these bands for all subjects for the first two secondary stages. Pupils have very different experiences of the curriculum within each band, as one teacher points out:

They all follow the same course, but we teach them in different styles. Band 1 tends to be core material ... plus a lot of extension work to build upon the skills that they already have. Band 2... there isn’t as much of the extension work. We’re basically concentrating on completing the core tasks. And Band 3 – it’s the same material really, but it’s been broken down into smaller segments so that it’s easier for the pupils to understand and laid out in such a way that pupils – it’s simpler for the pupils to follow and to get their answers (*Subject teacher in AERS case study B*).

A teacher with pastoral responsibilities at the same school provides another perspective:

With the Band 1 pupils, the top band, they are being pushed, pushed, they are, I think they are working at a faster level. And we always had [pupils presented for examinations one year earlier than average] in Maths...But German and French are doing it now as well and I can see that coming in for more subjects. And this can be done because if you’ve got a very good section of pupils then, you know, they will absorb what you are telling them. And the work ethic will be there. I think it works for Band 2. I’m not so happy about Band 3 (*Teacher in AERS case study B*).

The teacher with pastoral responsibilities also expressed concern at the lack of flexibility in the banding system – hardly any pupils were moved between bands, in spite of parental requests to do so.

It was apparent from the case studies that the demand for continuous improvement in high profile performance indicators based on examination results creates pressure on schools that lead them to introduce practices that are not equitable. However, at the time the case studies were carried out in 2007 there was no attempt to measure or evaluate the impact of practices such as ability grouping on inequalities in performance. The focus of measurement was on overall performance by subject departments and schools, with no awareness of the need to evaluate the relative progress of pupils in lower sets compared with those in higher sets. This lack of awareness is part of a wider problem of the inadequacy of data for evaluating differences and inequalities in Scottish schools.

Need for data to identify inequalities

There are insufficient data on inequalities within Scottish schools. Over the past decade school-level data on gender differences in attainment have been provided to schools as a means of alerting them to the perceived ‘underachievement’ of boys (Croxford et al. 2003). Information is also collected about pupils’ ethnicity and home language – so that it should be possible to monitor these issues. Although social class is the main source of inequality in Scotland, the effects of social class cannot be analysed because schools do not have information about parents’ qualifications or occupations.

One of the secondary case studies is part of a pilot scheme to reduce the numbers of young people who are Not in Education Employment or Training (NEET) when they leave school. The school is aware that problems start at early stages of schooling and is attempting to find ways of identifying pupils at risk of becoming NEET at early stages. However, the efforts of school staff are hampered by inadequate data and monitoring systems.

The OECD Review comments on the need for more reliable evidence about educational standards across Scotland. To meet the need for better data, the review suggests that the current Scottish Survey of Achievement (SSA) should be extended to assess all children throughout Scotland. Such a move would undoubtedly provide better data on pupils’ attainment and progress – and greatly enhance the capacity of schools, local authorities (and researchers) to analyse inequalities.

However, this recommendation raises concern about increasing the burden of testing in schools. Consultation with parents and teachers in a National Debate organised by the then government (Scottish Executive 2003) showed a widespread desire for less testing and, as a consequence, the current focus of initiatives such as ‘Assessment is for Learning’ is on formative assessment. The SSA is currently based on a representative sample of pupils and schools, but this already places a burden of summative assessment on pupils and schools. To extend the burden to all pupils could have negative effects on learning and teaching.

There is also a fear about how the test data could be used. For example, if cognitive abilities tests are used for ability grouping as described in the case study above it is possible that universal testing would bring more forms of selection and undermine the comprehensive system. There is also the example of National Testing in England, which has put pressure on teachers to 'teach to the test' and appears to have skewed the curriculum (House of Commons, Children, Schools and Families Committee 2008). Although the publication of school performance data by the Scottish government has been discontinued, the newspapers in Scotland still have an appetite for school 'league tables' and would undoubtedly use the Freedom of Information Act to gain access to the results of an extended SSA^{iv}.

Monitoring pupils' progress

The OECD review recommends more pupil-level monitoring of progress – and this was an issue in which many of the teachers interviewed were interested. Many teachers had devised their own paper-based systems of monitoring pupil progress, but these did not lend themselves to a comparison between subjects and over the year stages. Many expressed the desire for computer-based systems to monitor progress at pupil level, although they lacked systems and resources.

To some extent, the teacher-led desire for pupil-level monitoring appeared to be hampered because the main emphasis on the provision of data for accountability purposes is on aggregate data at school-level or department/class level rather than at pupil-level. The focus on aggregate data at the departmental and school level does not encourage schools to monitor the progress of individual students. In spite of this, some of the case-study schools are developing effective computer-based systems for monitoring the progress of individual pupils. One school uses CAT scores to support pupils in setting aspirational targets at the start of secondary school, and monitors their progress through subsequent stages. A school deputy head argued that this was for the pupils' benefit because:

'...it's about making sure kids are competitive when they go out of that door. It's about making sure that kids are not under-achieving. I'm talking about individual children are not under-achieving... Now the cumulative effect of that is that the school does better' (*Deputy headteacher in AERS case study D*).

Discussion

In Scotland, as in many systems throughout Europe and beyond, neo-liberal design principles of marketisation, competition, standardisation, differentiation and so on have been implemented to a greater or lesser degree (Minguez and Murillo 1996) and are associated with deepening inequalities and stronger tendencies towards polarisation (Lindblad and Popkewitz 1999). Scotland provides an example of relatively highly developed QAE processes – self evaluation, indicators and benchmarking – of

the type recommended in European policy texts (European Parliament and Council 2001). These approaches have been developed since the 1980s through the focus on improved performance by the UK government. The inspectorate has been a key player in designing the QAE system and defining the outcomes to be valued – it has considerable power through the inspection system to ensure its policies are implemented. The QAE processes developed in Scotland have been shared with inspectorates elsewhere in Europe through the work of the SICI.

Scotland also provides some examples of the negative effects of QAE on equity. The pressure to raise attainment – the most easily measured outcome – has led to the introduction of practices that reveal and exacerbate inequalities. The practice of ability grouping has been pushed by the inspectorate for efficiency reasons, without consideration of equity issues. Similar issues are raised by the EC's Communication on Efficiency and Equity, which points out that:

'Education systems with early tracking of students exacerbate differences in educational attainment due to social background, and thereby lead to even more inequitable outcomes in student and school performance' (EC 2006, para 3.2.15).

The OECD review brings a timely focus on inequalities in Scottish schooling. The Scottish system serves pupils from higher social class backgrounds well and produces relatively high levels of academic attainment and entry to higher education. However, the review also indicates that the system does not serve pupils from less advantaged backgrounds well and points to a need to improve the achievement of those from more disadvantaged backgrounds if the transmission of social disadvantage is to be broken down (OECD, 2007, p. 110). Scotland has long prided itself on the quality of its education system, including its provision of equality of opportunity through the comprehensive system of secondary education (Bryce and Humes, 2008). It is therefore essential that the inequalities identified by the OECD Review be addressed.

Linda Croxford is a senior research fellow at the Centre for Educational Sociology, University of Edinburgh (www.ces.ed.ac.uk). She has wide interests in education and youth transitions, including (in)equalities by social class, gender, ethnicity and geographical areas. Much of her research explores the effects of policy and practice in Scotland and the UK, while located in the broader wider framework of Europe.

References

- Bryce, T. and Humes, W. (2008) Scottish Secondary Education: Philosophy and Practice, in Bryce, T. G. K. and Humes, W. (eds.) *Scottish Education*, Third edition beyond devolution, Edinburgh: Edinburgh University Press.
- Cowie, M. and Croxford, L. (2006) Measuring and Monitoring School Performance in Scotland, *Education in the North*, 13, 23-36.
- Cowie, M., Taylor, D., and Croxford, L. (2007) 'Tough, Intelligent Accountability' in Scottish secondary schools and the role of Standard Tables and Charts (STACS): a critical appraisal, *Scottish Educational Review*, 39 (1) 29-50.
- Council of the European Union (2000) Presidency Conclusions, Lisbon European Council (23 and 24 March 2000). URL: http://europa.eu.int/ISPO/docs/services/docs/2000/jan-march/doc_00_8_en.html
- Croxford, L. (2008) Baseline Assessment in Scotland, in Bryce, T. G. K. and Humes, W. (eds.) *Scottish Education*, Third edition beyond devolution, Edinburgh: Edinburgh University Press.
- Croxford, L., Tinklin, T., Frame, B. and Ducklin, A. (2003) Gender and pupil performance: where do the problems lie? *Scottish Educational Review*, 35 (2) pp. 135-147.
- Croxford, L., Grek, S., and Shaik, F. (2009) 'Scotland in Europe : Promoting self-evaluation'. *Journal of Education Policy* 24(2), March 2009, 179-193.
- Dunne, M., Humphreys, S., Sebba, J., Dyson, A., Gallannaugh, F. and Muijs, D. (2007) *Effective Teaching and Learning for Pupils in Low Attaining Groups*, University of Sussex, <http://www.dcsf.gov.uk/research/data/uploadfiles/DCSF-RR011.pdf>
- European Commission (2002) *Communication from the Commission - European benchmarks in education and training: follow-up to the Lisbon European Council*, Brussels, 20.11.2002, COM(2002) 629 final http://ec.europa.eu/education/policies/2010/doc/bench_ed_trai_en.pdf
- European Commission (2006) *Communication from the Commission to the Council and to the European Parliament – Efficiency and equity in european education and training systems*, Brussels, 8.9.2006 COM (2006) 481 final <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0481:FIN:EN:PDF>
- European Commission (2008) *Schools Policy*, http://ec.europa.eu/education/school-education/doc828_en.htm#doc1
- European Parliament and Council (2001) Recommendations of the European Parliament and of the Council of 12 February 2001 on European cooperation in quality evaluation in school education, *Official Journal of the European Communities*, 2001/166/EC, L60/51-53.
- Grek, S. (2008) From Symbols to Numbers: the shifting technologies of education governance in Europe, *European Educational Research Journal*, 7 (2) pp. 208-218.
- Grek, S. (2009) Governing by Numbers: The PISA 'effect' in Europe, *Journal of Education Policy* 24 (1) 23-27.
- Grek, S. and Ozga, J. (2008) Governing by Numbers: Shaping Education through data, *CES Briefing No. 44*, <http://www.ces.ed.ac.uk/PDF%20Files/Briefing%2044.doc>
- Hallam, S. and Toutounji, I. (1996) *What do we know about the grouping of pupils by ability? A research review*, Institute of London, University of London.
- Harlen, W and Malcolm, H (1997) *Setting and Streaming: a research review*, Edinburgh: Scottish Council for Research in Education.
- HMI (1996) *Achievement for All: A report on selection within schools by HM Inspectors of schools*: <http://www.scotland.gov.uk/deleted/library3/education/afa-00.asp>

- HMIE (2007) *How Good is Our School? The Journey to Excellence*, <http://www.hmie.gov.uk/Generic/HGIOS>
- House of Commons, Children, Schools and Families Committee (2008) *Testing and Assessment: Third Report of Session 2007–08*, London: The Stationery Office Limited.
- Kirkwood, M. (2008) Classroom Management in the Secondary School, in Bryce, T. G. K. and Humes, W. (eds.) *Scottish Education*, Third edition beyond devolution, Edinburgh: Edinburgh University Press.
- Lindblad, S and Popkewitz, T (eds.) (1999) Education Governance and Social Integration and Exclusion: national cases of education systems and recent reforms, *Uppsala Reports on Education* No. 34. Uppsala: Universitetsstryckeriet.
- Minguez, M. L. G. and Murillo, J. (1996) Reforms of Compulsory Education in Europe (1984-1992). *European Education Research Association Bulletin* 2(3), December 1996, 9-12.
- Official Journal of the European Union (2006) Conclusions of the Council and the Representatives of the Governments of the Member States, meeting within the Council, on efficiency and equity in education and training (2006/C 298/03), 23 February 2006, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2006:298:0003:0006:EN:PDF>
- Organisation for Economic Cooperation and Development (2007) *Quality and Equity of Schooling in Scotland*, Paris: OECD.
- Ozga, J. and Lingard, B. (2007) Globalisation, Education Policy and Politics, in B. Lingard and J. Ozga (eds.) *The RoutledgeFalmer Reader in Education Policy and Politics*, London: Routledge.
- Raffe, D. (2008) As others see us: a commentary on the OECD Review of the Quality and Equity of Schooling in Scotland, *Scottish Educational Review*, 40 (1) pp. 22-36.
- Scottish Executive (2003) *Educating for Excellence: Choice and Opportunity – The Executive's Response to the National Debate*, <http://www.scotland.gov.uk/Publications/2003/01/16226/17192>
- Scottish Executive Education Department (2004) *Ambitious Excellent Schools: our agenda for action*, Edinburgh: Scottish Executive.
- Scottish Executive Education Department (2007) *OECD Review of Quality and Equity of Education Outcomes in Scotland: Diagnostic report*, www.oecd.org/edu/reviews/nationalpolicies
- Scottish Office (1997) the Curriculum in Education Authority Secondary Schools in Scotland 1991-1995, *Statistical Bulletin Education Series*, Edn/C7/1997/5.
- Sukhnandan, L. and Lee, B. (1998) *Streaming, setting and grouping by ability: a review of the literature*, Slough: NFER.

Endnotes

- i Funded by the UK Economic and Social Research Council (ESRC) and Eurocores (European Science Foundation) – see <http://www.ces.ed.ac.uk/research/FabQ/index.htm>
- ii Funded by the Scottish government – see <http://www.aers.org.uk/aers/> The AERS study involved collaborative work by a team of researchers with a variety of backgrounds and expertise from schools and local authorities as well as university-based researchers.
- iii The study focused on how schools use quantitative data, and the issues they raise. Interviews with teachers and headteachers were carried out in spring 2007 in six case-study schools across Scotland. These included two primary schools (serving ages 5-11), three secondary schools (serving ages 12-18), and one 'all-through' school serving ages 3-16. In each school, between 6 and 8 staff were interviewed including teachers, middle and senior managers and the headteacher.
- iv The Scottish government has chosen not to follow the recommendations of the review with respect to the SSA.

